VOLUME 48 · CONTENTS

No 1 JANUARY 2001

Page **Leading articles**

1 Explaining differences in the severity of familial adenomatous polyposis and the search for modifier genes *R Houlston, M Crabtree, R Phillips, I Tomlinson*

Commentaries

6 A role for IL-18 in intestinal inflammation? *P Garside*

7 Autoimmune hepatitis: a fertile field *J R Lake*

8 HCV in healthcare workers: a lightning strike *H C Thomas*

Science @lert

10 The worm turns on *Helicobacter pylori T T MacDonald*

Clinical @lert

12 Multivitamins, folate, and colon cancer *J Little*

Irritable bowel syndrome

14 Impaired transit and tolerance of intestinal gas in the irritable bowel syndrome *J Serra, F Azpiroz, J-R Malagelada*

20 An exaggerated sensory component of the gastrocolonic response in patients with irritable bowel syndrome *M Simrén, H Abrahamsson, E S Björnsson*

Nutrition

28 Oral glutamine in the prevention of fluorouracil induced intestinal toxicity: a double blind, placebo controlled, randomised trial *B Daniele, F Perrone, C Gallo, S Pignata, S De Martino, R De Vivo, E Barletta, R Tambaro, R Abbiati, L D'Agostino*

Growth factor

34 Epidermal growth factor reduces multiorgan failure induced by thioacetamide *M E Caballero, J Berlanga, D Ramirez, P Lopez-Saura, R Gozalez, D N Floyd, T Marchbank, R J Playford*

Colon cancer

41 Colonic crypt cell proliferation state assessed by whole crypt microdissection in sporadic neoplasia and familial adenomatous polyposis *S J Mills, J C Mathers, P D Chapman, J Burn, A Gunn*

47 Plasma levels of progastrin but not amidated gastrin or glycine extended gastrin are elevated in patients with colorectal carcinoma *R K Siddheshwar, J C Gray, S B Kelly*

53 Only fibres promoting a stable butyrate producing colonic ecosystem decrease the rate of aberrant crypt foci in rats *P Perrin, F Pierre, Y Patry, M Champ, M Berreur, G Pradal, F Bornet, K Meflah, J Menanteau*

Pancreatic tract

62 Double blind, randomised, placebo controlled study of a platelet activating factor antagonist, lexipafant, in the treatment and prevention of organ failure in predicted severe acute pancreatitis *C D Johnson, A N Kingsnorth, C W Imrie, M J McMahon, J P Neoptolemos, C McKay, S K C Toh, P Skaife, P C Leeder, P Wilson, M Larvin, L D Curtis, for the UK Acute Pancreatitis Study Group*

70 Cystic fibrosis transmembrane regulator (*CFTR*) ΔF508 mutation and 5T allele in patients with chronic pancreatitis and exocrine pancreatic cancer *N Malats, T Casals, M Porta, L Guarner, X Estivill, F X Real, for the PANKRAS II Study Group*

Biliary tract

75 Fatty acid bile acid conjugates (FABACs)—New molecules for the prevention of cholesterol crystallisation in bile *T Gilat, G J Somjen, Y Mazur, A Leikin-Frenkel, R Rosenberg, Z Halpern, F M Konikoff*

80 Aberrant cyclooxygenase isozyme expression in human intrahepatic cholangiocarcinoma *S Chariyalertsak, V Sirikulchayanonta, D Mayer, A Kopp-Schneider, G Fürstenberger, F Marks, K Müller-Decker*

Liver disease

87 Dual mechanism of vascular endothelial growth factor upregulation by hypoxia in human hepatocellular carcinoma *Z von Marschall, T Cramer, M Höcker, G Finkenzeller, B Wiedenmann, S Rosewicz*

97 Management and outcome of pregnancy in autoimmune hepatitis *M A Heneghan, S M Norris, J G O'Grady, P M Harrison, I G McFarlane*

103 Hepatocellular carcinoma in Central Europe: prognostic features and survival *M Schöniger-Hekele, C Müller, M Kutilek, C Oesterreicher, P Ferenci, A Gangl*

110 Evidence for an association between the aetiology of cirrhosis and pattern of hepatocellular carcinoma development *L Benvegnù, F Noventa, E Bernardinello, P Pontisso, A Gatta, A Alberti*

116 A study of hepatitis C prevalence in healthcare workers in the West of Scotland *D Thorburn, D Dundas, E A B McCruden, S O Cameron, D J Goldberg, I S Symington, A Kirk, P R Mills*

Case Report

121 Mitochondrial enteropathy: the primary pathology may not be within the gastrointestinal tract *P F Chinnery, S Jones, L Sviland, R M Andrews, T J Parsons, D M Turnbull, L A Bindoff*

Occasional viewpoint

125 Visceral hypersensitivity: facts, speculations, and challenges *M Camilleri, B Coulie, J F Tack*

Review

132 Bacteria as the cause of ulcerative colitis *M Campieri, P Gionchetti*

Letters to the editor

136 Immunohistochemical analysis of measles related antigen in IBD *A J Wakefield, S M Montgomery*

137 Survivin gene expression and prognosis in recurrent colorectal cancer *M Miller, D Smith, A Windsor, A Kessling*

138 **Notes Correction**

139 **Referees**

No 2 FEBRUARY 2001

Page **Leading article**

143 Inherited predisposition to pancreatic cancer *E Efthimiou, T Crnogorac-Jurcevic, N R Lemoine, T A Brentnall*

Commentaries

148 Is bacterial ash the flash that ignites NASH? *G C Farrell*

149 Hepatocellular carcinoma: is surveillance cost effective? *J Bruix, J M Llovet*
151 Endoscopic mucosal resection for early gastric cancer *S O'Mahony*

Science @lert
153 Adult liver stem cells: bone marrow, blood, or liver derived? *H A Crosby, A J Strain*

Clinical @lert
155 Urgent endoscopy in lower gastrointestinal bleeding *J L H Wong, H R Dalton*

Helicobacter pylori
157 *Helicobacter pylori* augments the acid inhibitory effect of omeprazole on parietal cells and gastric H^+/K^+-ATPase *W Beil, K-F Sewing, R Busche, S Wagner*

Small intestine
163 Protective effect of metronidazole on uncoupling mitochondrial oxidative phosphorylation induced by NSAID: a new mechanism *A Z A Leite, A M Sipahi, A O M C Damião, A M M Coelho, A T Garcez, M C C Machado, C A Buchpiguel, F P Lopasso, M L Lordello, C L O Agostinho, A A Laudanna*
168 Fructose-1,6-biphosphate in rat intestinal preconditioning: involvement of nitric oxide *A Sola, J Roselló-Catafau, E Gelpi, G Hotter*

Inflammatory bowel disease
176 Human defensin 5 is stored in precursor form in normal Paneth cells and is expressed by some villous epithelial cells and by metaplastic Paneth cells in the colon in inflammatory bowel disease *R N Cunliffe, F R A J Rose, J Keyte, L Abberley, W C Chan, Y R Mahida*
186 Switch from systemic steroids to budesonide in steroid dependent patients with inactive Crohn's disease *A Cortot, J-F Colombel, P Rutgeerts, K Lauritsen, H Malchow, J Hämling, T Winter, A Van Gossum, T Persson, E Pettersson, for the International Budesonide Study Group*
191 Fine mapping of the chromosome 3p susceptibility locus in inflammatory bowel disease *J Hampe, N J Lynch, S Daniels, S Bridger, A J S Macpherson, P Stokkers, A Forbes, J E Lennard-Jones, C G Mathew, M E Curran, S Schreiber*

Intestinal microflora
198 Age and disease related changes in intestinal bacterial populations assessed by cell culture, 16S rRNA abundance, and community cellular fatty acid profiles *M J Hopkins, R Sharp, G T Macfarlane*
206 The role of small intestinal bacterial overgrowth, intestinal permeability, endotoxaemia, and tumour necrosis factor α in the pathogenesis of non-alcoholic steatohepatitis *A J Wigg, I C Roberts-Thomson, R B Dymock, P J McCarthy, R H Grose, A G Cummins*

Motility and visceral sensation
212 Gastric dysrhythmias occur in gastro-oesophageal reflux disease complicated by food regurgitation but not in uncomplicated reflux *A Leahy, K Besherdas, C Clayman, I Mason, O Epstein*
216 Ambulatory abdominal inductance plethysmography: towards objective assessment of abdominal distension in irritable bowel syndrome *M J V Lewis, B Reilly, L A Houghton, P J Whorwell*
221 Topical nitrates potentiate the effect of botulinum toxin in the treatment of patients with refractory anal fissure *J Lysy, Y Israelit-Yatzkan, M Sestiery-Ittah, S Weksler-Zangen, D Keret, E Goldin*

Gastrointestinal cancer
225 Endoscopic mucosal resection for treatment of early gastric cancer *H Ono, H Kondo, T Gotoda, K Shirao, H Yamaguchi, D Saito, K Hosokawa, T Shimoda, S Yoshida*
230 Antisense treatment directed against mutated Ki-ras in human colorectal adenocarcinoma *H J N Andreyev, P J Ross, D Cunningham, P A Clarke*
238 Severe imbalance of cell proliferation and apoptosis in the left colon and in the rectosigmoid tract in subjects with a history of large adenomas *M Anti, A Armuzzi, S Morini, E Iascone, G Pignataro, C Coco, R Lorenzetti, M Paolucci, M Covino, A Gasbarrini, F M Vecchio, G Gasbarrini*

Pancreatic disease
247 A new polymorphism for the RI22H mutation in hereditary pancreatitis *N Howes, W Greenhalf, S Rutherford, M O'Donnell, R Mountford, I Ellis, D Whitcomb, C Imrie, B Drumm, J P Neoptolemos*

Liver disease
251 Surveillance programme of cirrhotic patients for early diagnosis and treatment of hepatocellular carcinoma: a cost effectiveness analysis *L Bolondi, S Sofia, S Siringo, S Gaiani, A Casali, G Zironi, F Piscaglia, L Gramantieri, M Zanetti, M Sherman*
260 Increased risk and case fatality rate of pyogenic liver abscess in patients with liver cirrhosis: a nationwide study in Denmark *I Mølle, A M Thulstrup, H Vilstrup, H T Sørensen*
264 Factor V Leiden related Budd-Chiari syndrome *P Deltenre, M-H Denninger, S Hillaire, M-C Guillin, N Casadevall, J Brière, S Erlinger, D-C Valla*

Case report
269 Regression of gastric T cell lymphoma with eradication of *Helicobacter pylori C Bariol, A Field, C R Vickers, R Ward*

Review
272 Treatment of irritable bowel syndrome: a review of randomised controlled trials *R Akehurst, E Kaltenthaler*

Letters to the editor
283 Cholecystectomy and bowel function *P W Plaisier*
283 MALT lymphomas and *Helicobacter pylori*? *S A Hoption Cann, J P van Netten*
283 Guidelines for the management of iron deficiency anaemia *O Jolobe*
284 **Correction Notes**

No 3 MARCH 2001

Page **Editorial**
285 Retractions in *Gut* 10 years after publication *M J G Farthing*
286 Retraction

Leading article
287 Blood, urine, stool, breath, money, and *Helicobacter pylori D Vaira, N Vakil*

Commentary
290 *Helicobacter pylori* associated gastric B cell MALT lymphoma: predictive factors for regression *A Morgner, E Bayerdörffer, A Neubauer, M Stolte*

Science @lert
293 Interaction of trefoil family factors with mucins: clues to their mechanism of action? *N A Wright*

Clinical @lert

295 Lack of effect of intravenous azathioprine on time to respond for steroid treated Crohn's disease *M J Carter, A J Lobo*

Helicobacter pylori

297 Predictive factors for regression of gastric MALT lymphoma after anti-*Helicobacter pylori* treatment *A Ruskoné-Fourmestraux, A Lavergne, P H Aegerter, F Megraud, L Palazzo, A de Mascarel, T Molina, J-C L Rambaud, the Groupe d'Etude des Lymphomes Digestifs (GELD)*

Barrett's oesophagus

304 Secular trends in the epidemiology and outcome of Barrett's oesophagus in Olmsted County, Minnesota *M Conio, A J Cameron, Y Romero, C D Branch, C D Schleck, L J Burgart, A R Zinsmeister, L J Melton III, G R Locke III*

310 Correlation of oesophageal acid exposure with Barrett's oesophagus length *R Fass, R W Hell, H S Garewal, P Martinez, G Pulliam, C Wendel, R E Sampliner*

314 Endoscopic fluorescence detection of low and high grade dysplasia in Barrett's oesophagus using systemic or local 5-aminolaevulinic acid sensitisation *E Endlicher, R Knuechel, T Hauser, R-M Szeimies, J Schölmerich, H Messmann*

Inflammation and inflammatory bowel disease

320 Genetically related *Escherichia coli* strains associated with Crohn's disease *E Masseret, J Boudeau, J F Colombel, C Neut, P Desreumaux, B Joly, A Cortot, A Darfeuille-Michaud*

326 Increased expression of IL-16 in inflammatory bowel disease *D Seegert, P Rosenstiel, H Pfahler, P Pfefferkorn, S Nikolaus, S Schreiber*

333 Cryptogenetic multifocal ulcerous stenosing enteritis: an atypical type of vasculitis or a disease mimicking vasculitis *G Perlemuter, L Guillevin, P Legman, L Weiss, D Couturier, S Chaussade*

339 Selective inhibition of COX-2 in humans is associated with less gastrointestinal injury: a comparison of nimesulide and naproxen *A A Shah, B Thjodleifsson, F E Murray, E Kay, M Barry, G Sigthorsson, H Gudjonsson, E Oddsson, A B Price, D J Fitzgerald, I Bjarnason*

Motility and visceral sensation

347 Role of duodenal lipid and cholecystokinin A receptors in the pathophysiology of functional dyspepsia *C Feinle, O Meier, B Otto, M D'Amato, M Fried*

356 Topical phenylephrine increases anal canal resting pressure in patients with faecal incontinence *M J Cheetham, M A Kamm, R K S Phillips*

Colorectal cancer

360 Tumour infiltrating lymphocytes and apoptosis are independent features in colorectal cancer stratified according to microsatellite instability status *J M Michael-Robinson, A-E Biemer-Hüttmann, D M Purdie, M D Walsh, L A Simms, K G Biden, J P Young, B A Leggett, J R Jass, G L Radford-Smith*

367 Hypermethylation of the promoter region of the E-cadherin gene (*CDH1*) in sporadic and ulcerative colitis associated colorectal cancer *J M D Wheeler, H C Kim, J A Efstathiou, M Ilyas, N J McC Mortensen, W F Bodmer*

Hepatobiliary disease

372 Detection of hypermethylation of the *p16*^{INK4A} gene promoter in chronic hepatitis and cirrhosis associated with hepatitis B or C virus *H Kaneto, S Sasaki, H Yamamoto, F Itoh, M Toyota, H Suzuki, I Ozeki, N Iwata, T Ohmura, T Satoh, Y Karino, T Satoh, J Toyota, M Satoh, T Endo, M Omata, K Imai*

378 Induction of autoantibodies to the adrenal cortex and pancreatic islet cells by interferon alpha therapy for chronic hepatitis C *B Wesche, E Jaeckel, C Trautwein, H Wedemeyer, A Falorni, H Frank, A von zur Mühlen, M-P Manns, G Brabant*

384 Abdominal decompression plays a major role in early postparacentesis haemodynamic changes in cirrhotic patients with tense ascites *J Cabrera, L Falcón, E Gorriz, M D Pardo, R Granados, A Quinones, M Maynar*

390 Transjugular intrahepatic portosystemic shunt (TIPS) versus endoscopic variceal ligation in the prevention of variceal rebleeding in patients with cirrhosis: a randomised trial *G Pomier-Layrargues, J-P Villeneuve, M Deschênes, B Bui, P Perreault, D Fenyves, B Willems, D Marleau, M Bilodeau, M Lafortune, M-P Dufresne*

397 HLA and interleukin 1 gene polymorphisms in primary biliary cirrhosis: associations with disease progression and disease susceptibility *P Donaldson, K Agarwal, A Craggs, W Craig, O James, D Jones*

403 K-ras mutations in the bile of patients with primary sclerosing cholangitis *S Kubicka, F Kühnel, P Flemming, B Hain, N Kezmic, K L Rudolph, M Manns, P N Meier*

409 The causes of obvious jaundice in South West Wales: perceptions versus reality *M W Whitehead, I Hainsworth, J G C Kingham*

414 Increased sphincter of Oddi basal pressure in patients affected by gall stone disease: a role for biliary stasis and colicky pain? *M Cicala, F I Habib, F Fiocca, N Pallotta, E Corazziari*

Coeliac disease

418 FAS engagement drives apoptosis of enterocytes of coeliac patients *L Maiuri, C Ciacci, V Raia, L Vacca, I Ricciardelli, F Raimondi, S Auricchio, S Quaratino, M Londei*

Case Report

425 Role of interferon α in promoting T helper cell type 1 responses in the small intestine in coeliac disease *G Monteleone, S L F Pender, E Alstead, A C Hauer, P Lionetti, T T MacDonald*

Occasional viewpoint

430 Increased colorectal neoplasia in chronic ulcerative colitis complicated by primary sclerosing cholangitis: fact or fiction? *H Jayaram, J Satsangi, R W G Chapman*

Review

435 Potential benefits and hazards of physical activity and exercise on the gastrointestinal tract *H P F Peters, W R de Vries, G P vanBerge-Henegouwen, L M A Akkermans*

Letters to the editor

440 Is needle biopsy of the liver necessary to diagnose HCC ? *F Cetta, M Zuckermann, A de Nisi*

440 Management of gastric fundal varices associated with a gastrorenal shunt *A Matsumoto, H Matsumoto, N Hamamoto, M Kayazawa*

441 The science, economics, and effectiveness of combination therapy for hepatitis C *B Read*

441 Screening for genetic haemochromatosis in blood samples with raised alanine aminotransferase *J Paterson, F Toolis*

442 **Notes Correction**

No 4 APRIL 2001

Page **Leading article**

443 Prion proteins and the gut: une liaison dangereuse? *A N Shmakov, S Ghosh*

Commentaries

448 Boning up on vitamin K *J E Compston*

449 Bugs and the gut: breaking barriers to understanding *P Borriello*
449 The changing scope of colorectal cancer *C R Boland, T J Savides*

Therapy update
451 COX-2 inhibitors and the gastrointestinal tract *I Bjarnason, K D Rainsford*

Clinical @lert
452 Little benefit from mesalazine taken prophylactically after surgery for Crohn's disease *P Rutgeerts*

Helicobacter pylori
454 Predictive value of endoscopic ultrasonography for regression of gastric low grade and high grade MALT lymphomas after eradication of *Helicobacter pylori S Nakamura, T Matsumoto, H Suekane, M Takeshita, K Hizawa, M Kawasaki, T Yao, M Tsuneyoshi, M Iida, M Fujishima*

Inflammation and inflammatory bowel disease
461 Association of the interleukin 1 receptor antagonist gene with ulcerative colitis in Northern European Caucasians *M J Carter, F S di Giovine, S Jones, J Mee, N J Camp, A J Lobo, G W Duff*
468 Neuronal COX-2 expression in human myenteric plexus in active inflammatory bowel disease *P J Roberts, K Morgan, R Miller, J O Hunter, S J Middleton*
473 Low serum and bone vitamin K status in patients with longstanding Crohn's disease: another pathogenetic factor of osteoporosis in Crohn's disease? *E J Schoon, M C A Müller, C Vermeer, L J Schurgers, R-J M Brummer, R W Stockbrügger*
478 Calpain inhibitor I reduces colon injury caused by dinitrobenzene sulphonic acid in the rat *S Cuzzocrea, M C McDonald, E Mazzon, H Mota-Filipe, T Centorrino, M L Terranova, A Ciccolo, D Britti, A P Caputi, C Thiemermann*
489 Role of T lymphocytes in rat 2,4,6-trinitrobenzene sulphonic acid (TNBS) induced colitis: increased mortality after γδ T cell depletion and no effect of αβ T cell depletion *J C Hoffmann, K Peters, S Henschke, B Herrmann, K Pfister, J Westermann, M Zeitz*

Small bowel
496 Parallel expression of macrophage metalloelastase (MMP-12) in duodenal and skin lesions of patients with dermatitis herpetiformis *M T Salmela, S L F Pender, T Reunala, T MacDonald, U Saarialho-Kere*

Intestinal microflora
503 Modulation of colonic barrier function by the composition of the commensal flora in the rat *A Garcia-Lafuente, M Antolin, F Guarner, E Crespo, J-R Malagelada*

Colon cancer
508 Familial adenomatous polyposis: more evidence for disease diversity and genetic heterogeneity *R J Scott, C Meldrum, R Crooks, A D Spigelman, J Kirk, K Tucker, D Koorey, the Hunter Family Cancer Service*
515 Can *APC* mutation analysis contribute to therapeutic decisions in familial adenomatous polyposis? Experience from 680 FAP families *W Friedl, R Caspari, M Sengteller, S Uhlhaas, C Lamberti, M Jungck, M Kadmon, M Wolf, J Fahrenstich, J Gebert, G Möslein, E Mangold, P Propping*
522 Flexible sigmoidoscopy and the changing distribution of colorectal cancer: implications for screening *K McCallion, R M S Mitchell, R H Wilson, F Kee, R G P Watson, J S A Collins, K R Gardiner*
526 The risk of colorectal cancer in ulcerative colitis: a meta-analysis *J A Eaden, K R Abrams, J F Mayberry*

Neuroendocrine tumours
536 Analysis of sporadic neuroendocrine tumours of the enteropancreatic system by comparative genomic hybridisation *H Tönnies, M R Toliat, C Ramel, U F Pape, H Neitzel, W Berger, B Wiedenmann*

Pancreatic disease
542 Expression and penetrance of the hereditary pancreatitis phenotype in monozygotic twins *S T Amann, L K Gates, C E Aston, A Pandya, D C Whitcomb*

Liver disease
548 Apoptosis of hepatic stellate cells: involvement in resolution of biliary fibrosis and regulation by soluble growth factors *R Issa, E Williams, N Trim, T Kendall, M J P Arthur, J Reichen, R C Benyon, J P Iredale*
558 Enhanced glypican-3 expression differentiates the majority of hepatocellular carcinomas from benign hepatic disorders *Z-W Zhu, H Friess, L Wang, M Abou-Shady, A Zimmermann, A D Lander, M Korc, J Kleeff, M W Büchler*

Gut file
565 Ultrasound appearance of preclinical *Oesophagostomum bifurcum* induced colonic pathology *P A Storey, G Faile, D Crawley, J A van Oostayen, S Anemana, A M Polderman, P Magnussen*

Occasional viewpoint
567 Search and treat strategy to eliminate *Helicobacter pylori* associated ulcer disease *W A de Boer, N J Tytgat*

Review
571 Intestinal luminal pH in inflammatory bowel disease: possible determinants and implications for therapy with aminosalicylates and other drugs *S G Nugent, D Kumar, D S Rampton, D F Evans*

Letters to the editor
578 Percutaneous drainage of echinococcal cysts *H G Schipper, P A Kager, J S Laméris*
578 Body mass and gastro-oesophageal reflux symptoms *R N Maric, K K Cheng*
579 Faecal calprotectin levels and colorectal neoplasia *W G Brydon, S S Campbell, N A Anderson, R G Wilson, S Ghosh*
580 Sporadic HEV hepatitis in Italy *A Grieco, L Miele, G Gasbarrini, R Grillo*
580 Re-epithelialisation of Barrett's oesophagus *C Kelty, R Ackroyd*
580 Adenocarcinoma arising in columnar lined oesophagus following treatment with argon plasma coagulation *A Shand, H Dallal, K Palmer, S Ghosh, M MacIntyre*
581 Outcome of lamivudine resistant hepatitis B virus infection in liver transplant recipients in Singapore *C T Wai, S G Lim, K C Tan*
581 Gastric cancer in patients with benign dyspepsia *K E L McColl, J Kidd, D Gillen*
582 **Book reviews Corrections Notes**

No 5 MAY 2001

Page **Leading article**
585 Some of the challenges in drug development for irritable bowel syndrome *E A Mayer*
587 Dietary fibre and the risk of colorectal cancer *R A Goodlad*

Commentaries
590 *Helicobacter pylori*, harmful to the brain? *A T Blei*
591 Rational dosing of azathioprine and 6-mercaptopurine *W J Sandborn*
592 New pouches for old? *N Mortensen*

Science @lert
594 Landscaper seeks remunerative position *R J Playford*

Clinical @lert
596 Serotonin receptor modulation in irritable bowel syndrome: one step forwards and one step backwards *P J Whorwell*

Helicobacter pylori
598 *Helicobacter pylori* infection induced alteration of gene expression in human gastric cells *C-C Chiou, C-C Chan, D-L Sheu, K-T Chen, Y-S Li, E-C Chan*
605 *Helicobacter pylori* infection induces hyperammonaemia in Mongolian gerbils with liver cirrhosis *H Suto, T Azuma, S Ito, M Ohtani, M Dojo, Y Ito, Y Kohli, M Kuriyama*

Therapy update
609 Probiotics in inflamatory bowel disease *F Shanahan*

Inflammation and inflammatory bowel disease
610 Absence of endogenous interleukin 10 enhances early stress response during post-ischaemic injury in mice intestine *B Zingarelli, Z Yang, P W Hake, A Denenberg, H R Wong*
623 Upregulation of Reg 1α and GW112 in the epithelium of inflamed colonic mucosa *S Shinozaki, T Nakamura, M Iimura, Y Kato, B Iizuka, M Kobayashi, N Hayashi*
630 Role of mast cells in chronic stress induced colonic epithelial barrier dysfunction in the rat *J Santos, P-C Yang, J D Söderholm, M Benjamin, M H Perdue*
637 No evidence of persistent mumps virus infection in inflammatory bowel disease *M Iizuka, H Saito, M Yukawa, H Itou, T Shirasaka, M Chiba, T Fukushima, S Watanabe*
642 Utilisation of erythrocyte 6-thioguanine metabolite levels to optimise azathioprine therapy in patients with inflammatory bowel disease *C Cuffari, S Hunt, T Bayless*

Therapy update
647 Antibiotics in Crohn's disease *J-F Colombel, A Cortot, H J van Kruiningen*

Proliferation and cancer
648 Dramatic diurnal variation in the concentration of the human trefoil peptide TFF2 in gastric juice *J I Semple, J L Newton, B R Westley, F E B May*
656 Genetic alterations and growth pattern in biliary duct carcinomas: loss of heterozygosity at chromosome 5q bears a close relation with polypoid growth *E Hidaka, A Yanagisawa, M Seki, T Setoguchi, Y Kato*
660 Non-steroidal anti-inflammatory drugs with activity against either cyclooxygenase 1 or cyclooxygenase 2 inhibit colorectal cancer in a DMH rodent model by inducing apoptosis and inhibiting cell proliferation *W A Brown, S A Skinner, C Malcontenti-Wilson, D Vogiagis, P E O'Brien*
667 Circumferential resection margin involvement: an independent predictor of survival following surgery for oesophageal cancer *S P L Dexter, H Sue-Ling, M J McMahon, P Quirke, N Mapstone, I G Martin*

Motility and visceral sensation
671 Analysis of the *RET*, *GDNF*, *EDN3*, and *EDNRB* genes in patients with intestinal neuronal dysplasia and Hirschsprung disease *R Gath, A Goessling, K-M Keller, S Koletzko, W Coerdt, H Müntefering, S Wirth, R M W Hofstra, L Mulligan, C Eng, A von Deimling*
676 Effects of octreotide on responses to colorectal distension in the rat *X Su, M B Burton, G F Gebhart*
683 Functional results and visceral perception after ileo neo-rectal anastomosis in patients: a pilot study *G I Andriesse, H G Gooszen, M E I Schipper, L M A Akkermans, T J M V van Vroonhoven, C J H M van Laarhoven*
690 Modification of small bowel mechanosensitivity by intestinal fat *A M Accarino, F Azpiroz, J-R Malagelada*

Coeliac disease
696 Candidate gene regions and genetic heterogeneity in gluten sensitivity *P Holopainen, K Mustalahti, P Uimari, P Collin, M Mäki, J Partanen*

Gallstones
702 Biliary lipid composition in cholesterol microlithiasis *M Fracchia, S Pellegrino, P Secreto, L Gallo, G Masoero, A Pera, G Galatola*

Liver disease
707 The epidemiology of hepatitis C in a UK health regional population of 5.12 million *A H Mohsen, Trent HCV Study Group*
714 Low frequency of HLA-DRB111 in hepatitis C virus induced end stage liver disease *H L Tillmann, D-F Chen, C Trautwein, V Kliem, A Grundey, A Berning-Haag, K Böker, S Kubicka, L Pastucha, W Stangel, M P Manns*

Case reports
719 Heterotopic gastric mucosa together with intestinal metaplasia and moderate dysplasia in the gall bladder: report of two clinically unusual cases with literature review *N Xeropotamos, A S Skopelitou, Ch Batsis, A M Kappas*
724 Distinct outcomes of chloride diarrhoea in two siblings with identical genetic background of the disease: implications for early diagnosis and treatment *P Höglund, C Holmberg, P Sherman, J Kere*
728 A winking anus may signify spinal injury *A J Malouf, M A Kamm*

Occasional viewpoint
730 Persistent low prevalence of Western digestive diseases in Africa: confounding aetiological factors *I Segal, A R P Walker, A Wadee*

Review
733 The promise and potential hazards of adenovirus gene therapy *L S Young, V Mautner*

Letters to the editor
737 Grading system for inflammation in ulcerative colitis *S S Cross*
737 Insulin and gall stones *K W Heaton, P M Emmett*
738 Heparin as an anti-inflammatory agent: it's no GAG to forget about chemokines *S J Connor, M C Grimm*
738 Management of variceal haemorrhage in cirrhotic patients *A K Burroughs, D W Patch*
740 Long term follow up of interferon responder children with chronic hepatitis B *N Koçak, I N Saltik, H Özen, F Gürakan, A Yüce*
740 Renal sodium handling in preascitic cirrhosis *G Sansoè, A Ferrari*
741 **Book reviews** **Correction** **Notes**

No 4 JUNE 2001

Page **Leading articles**
743 The importance of interleukin 1β in *Helicobacter pylori* associated disease *M El-Omar*
748 Detection of persistent measels virus infection in Crohn's disease: current status of experimental work *S Ghosh, E Armitage, D Wilson, P D Minor, M A Afzal*
753 Colonoscopic polypectomy and the incidence of colorectal cancer *S J Winawer, A C Zauber*

754 Small fry starting to make waves *M Alison*
755 Iron overload in Montpelier *P C Adams*

Therapy update
757 Liquid diets for Crohn's disease *M O'Sullivan, C O'Morain*

Debate
758 Antagonist: Should we eradicate *Helicobacter pylori* in non-ulcer dyspepsia? *D Pantoflickova, A L Blum*
759 Protagonist: Should we eradicate *Helicobacter pylori* in non-ulcer dyspepsia? *K E L McColl*

Science @lert
762 T cell control of the gut IgA response against commensal bacteria *N A Bos, H-Q Jiang, J J Cebra*

Stomach
765 Effects of *Helicobacter pylori* infection on gastric acid secretion and serum gastrin levels in Mongolian gerbils *M Takashima, T Furuta, H Hanai, H Sugimura, E Kaneko*
774 Acid regulates inflammatory response in a rat model of induction of gastric ulcer recurrence by interleukin 1β *T Watanabe, K Higuchi, K Tominaga, Y Fujiwara, T Arakawa*
782 Inhibition of carbachol stimulated acid secretion by interleukin 1β in rabbit parietal cells requires protein kinase C *I L P Beales, J Calam*

Therapy update
790 Methotrexate in Crohn's disease *D S Rampton*

Proliferation and repair
792 Ulcer associated cell lineage glands expressing trefoil peptide genes are induced by chronic ulceration in ileal pouch mucosa *M Pera, J Heppell, R Poulsom, F V Teixeira, J Williams*
797 Fatty acids and epithelial permeability: effect of conjugated linoleic acid in Caco-2 cells *H M Roche, A M Terres, I B Black, M J Gibney, D Kelleher*
803 Gastrointestinal cell proliferation and crypt fission are separate but complementary means of increasing tissue mass following infusion of epidermal growth factor in rats *J Berlanga-Acosta, R J Playford, N Mandir, R A Goodlad*

Gastrointestinal cancer
808 Soluble E-cadherin is a valid prognostic marker in gastric carcinoma *A O O Chan, S K Lam, K M Chu, C M Lam, E Kwok, S Y Leung, S T Yuen, S Y K Law, W M Hui, K C Lai, C Y Wong, H C Hu, C L Lai, J Wong*
812 Efficacy in standard clinical practice of colonoscopic polypectomy in reducing colorectal cancer incidence *F Citarda, G Tomaselli, R Capocaccia, S Barcherini, M Crespi, The Italian Multicentre Study Group*
816 Increase in mortality rates from intrahepatic cholangiocarcinoma in England and Wales 1968–1998 *S D Taylor-Robinson, M B Toledano, S Arora, T J Keegan, S Hargreaves, A Beck, S A Khan, P Elliott, H C Thomas*
821 Microsatellite instability and the clinicopathological features of sporadic colorectal cancer *R Ward, A Meagher, I Tomlinson, T O'Connor, M Norrie, R Wu, N Hawkins*

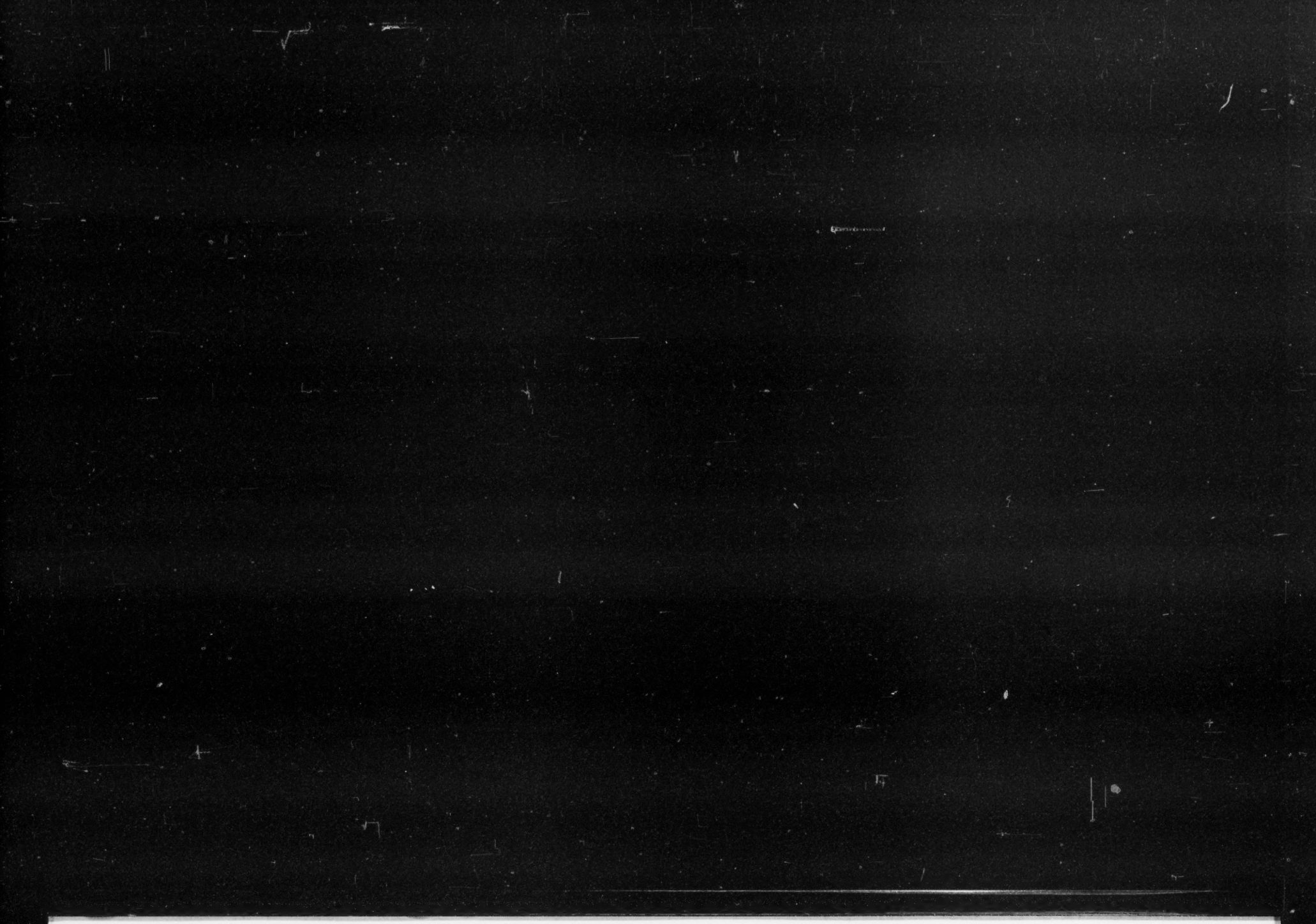
Liver disease
830 Sequences in the NS5A protein of hepatitis C virus and the serum alanine aminotransferase response to interferon therapy in Japanese patients *K Nagayama, N Enomoto, N Izumi, M Kurosaki, Y Miyasaka, H Watanabe, J Itakura, C-H Chen, J Tazawa, Y Hoshino, T Ikeda, F Maruno, C Sato*
836 Variable phenotypic presentation of iron overload in H63D homozygotes: are genetic modifiers the cause? *P Aguilar-Martinez, M Bismuth, M C Picot, C Thelcide, G-P Pageaux, F Blanc, P Blanc, J-F Schved, D Larrey*
843 Impact of interferon therapy on the natural history of hepatitis C virus related cirrhosis *A Gramenzi, P Andreone, S Fiorino, C Cammà, M Giunta, D Magalotti, C Cursaro, C Calabrese, V Arienti, C Rossi, G Di Febo, M Zoli, A Craxi, G Gasbarrini, M Bernardi*
849 Wilson's disease with severe hepatic insufficiency: beneficial effects of early administration of D-penicillamine *F Durand, J Bernuau, E Giostra, G Mentha, D Shouval, C Degott, J P Benhamou, D Valla*

Case report
853 Concurrent occurrence of gastric adenocarcinoma and duodenal neuroendocrine cell carcinoma: a composite tumour or collision tumours ? *H Fukui, M Takada, T Chiba, R Kashiwagi, M Sakane, F Tabata, Y Kuroda, Y Ueda, H Kawamata, J Imura, T Fujimori*

Gut file
857 A case of hypomagnesaemia due to malabsorption, unresponsive to oral administration of magnesium glycerophosphate, but responsive to oral magnesium oxide supplementation *J R Ross, P I Dargan, A L Jones, A Kostrzewski*

Review
859 Cannabinoids and the gastrointestinal tract *R G Pertwee*

Letters to the editor
868 Survival for colorectal cancer *S S Cross*
869 *Helicobacter pylori*, Lewis antigens, and inflammation *M A Heneghan, A P Moran*
869 Relation of *H pylori* to gastric mucins and gastric surface mucous gel layer *H Ota, J Nakayama, T Shimizu, D Y Graham, T Katsuyama*
871 *Helicobacter pylori* infection and acid secretion in patients with duodenal ulcer in Japan *T Chiba, T Watanabe, T Ito*
872 **Book reviews Correction Notes Retraction**
874 **Volume 48: Author Index**
881 **Volume 48: Subject Index**
Volume 48: Contents

Supplement No I
MARCH

Page **British Society of Gastroenterology Annual Meeting, 18–21 March 2001. Abstracts**
A1–A124